

Special Issue

Research on Mitochondria and Cell Death in Disease Diagnosis and Treatment

Message from the Guest Editor

Mitochondria are essential organelles for many aspects of cellular homeostasis. Mitochondrial metabolism links energy production with other important cellular processes, such as signal transduction, cell differentiation, and apoptosis. In addition to mitochondria are responsible for the synthesis of many important metabolites and cofactors. In addition, mitochondria and their metabolism are involved in aging and a number of human diseases. Diseases defined by mitochondrial dysfunction have expanded from rare monogenic disorders to metabolic, cardiovascular, neurodegenerative and neuromuscular diseases. This Special Issue will discuss the molecular mechanisms that regulate mitochondria at multiple levels, as well as their role in the pathophysiology of diseases and the development of new therapeutic strategies. Topics of interest include, but are not limited to, the following: diagnosis and treatment of mitochondrial dysfunctions, reactive oxygen specifications, oxidative stress, lipid peroxidation, mitochondrial dynamics, mitophagy, mitochondrial biogenesis, apoptosis and diseases related to mitochondrial dysfunction.

Guest Editor

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The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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